

## REMARKS/ARGUMENTS

### STATUS OF CLAIMS

Claims 1-3 and 8-18 are now pending in this application. Claims 4-7 were previously canceled without prejudice or disclaimer. Claim 1 has been amended to delete ZnSe and ZnSSe from the listing of materials that the solid material illuminant medium can be selected from without the addition of any new matter.

### SUMMARY OF THE OFFICE ACTION

The outstanding Office Action is a non-final Action that acknowledges consideration of the references included with the Information Disclosure Statement that was filed March 26, 2010 and presents rejections of claims 1-3 and 8-18 under 35 U.S.C. § 103(a).

### 103 REJECTION OF CLAIMS 1 AND 2

Item 4 on page 2 of the outstanding Action sets forth a rejection of claims 1 and 2 under 35 U.S.C. § 103(a) as being unpatentable over Shimizu et al. (U.S. Patent No. 5,998,925, hereinafter “Shimizu”) in view of Yamada et al. (“Efficient luminescence from Sm-doped ZnSSe/undoped-ZnS multi-quantum wells”). This rejection is respectfully traversed.

The independent claim 1 light-emitting device requires “a solid material illuminant that is made up of a medium that transmits the blue-violet light with low loss and an absorbent for absorbing said blue-violet light, the absorbent containing Sm of 0.01 to 10 mol%” that has to be selected from the group consisting of GaN, AlN, InGaN, InAlN, InGaAlN, Si<sub>3</sub>N<sub>4</sub>, GaNP, AlNP, InGaNP, InAlNP, InGaAINP, GaNAs, AlNAs, InGaNAs, InAlNAs, InGaAINAs, GaNAsP, AlNAsP, InGaNAsP, InAlNAsP, and InGaAINAsP.

The light emitting device of Shimizu is taught at col. 8, lines 30-36, and lines 50-54, to include a “coating resin 101 that contains the phosphor” that is to “cover the light emitting component 102” as also shown by Fig. 1 or a coating 201 formed from a coating material that “contains a specified phosphor” that will fully cover the light emitting element 202 as shown by Fig. 2. There is no teaching or suggestion to be found in these suggested coatings (101 or 201) of Shimizu of a solid material illuminant medium that “is selected from the group consisting of GaN, AlN, InGaN, InAlN, InGaAlN, Si<sub>3</sub>N<sub>4</sub>, GaNP, AlNP, InGaNP, InAlNP, InGaAINP, GaNAs,

AlNAs, InGaNAs, InAlNAs, InGaAlNAs, GaNAsP, AlNAsP, InGaNAsP, InAlNAsP, and InGaAlNAsP."

Page 3 of the outstanding Action tries to cure this glaring deficiency of Shimizu by ignoring that the teachings of Shimizu clearly are directed to light emitting components 102 and 202 being covered by respective resin coating 101 or coating material 201 that contain the phosphor that can contain Sm. This error is compounded by erroneously alleging that incompatible multi-quantum well (MQW) teachings of Yamada (at relied upon page 937, col. 1, lines 22-23, page 938, col.1, lines 1-5, and Figure 5) can be taken completely out of context and some how used to modify the Shimizu taught coatings 101 and/or 201. In this regard, it is impermissible within the framework of section 103 to pick and choose from any one reference only incomplete portions of teachings while ignoring the other reference teachings necessary to the full appreciation of what the reference fairly suggests to one of ordinary skill in the art. *See In re Wesslau*, 147 USPQ 391, 393 (CCPA 1965).

In any event, even if the artisan would have been led to replace the Shimizu taught resin coating 101 or coating material 201 (that contain the phosphor that can contain Sm of the content claimed) by the Sm doped ZnSSe or Sm doped ZnSSe/ZnS MQW structure (noted in the description of Fig. 5 extending from the bottom of col.1 on page 937 to line 4 of col. 1 on page 938 of Yamada) or if it is being suggested that just the ZnSSe or ZnSSe/ZnS multi-quantum well (MQW) structure of Yamada would have been obvious to use to replace coatings 101 or 201, ZnSSe, ZnS or ZnSSe/ZnS are not listed as materials from which the claim 1 solid material illuminant medium is selected. .

In view of the above, independent claim 1 and claim 2 (that directly depends thereon) are respectfully submitted to be clearly patentable over the reasonable teachings and fair suggestions of Shimizu in view of Yamada. Accordingly, the withdrawal of the rejection of claims 1 and 2 under 35 U.S.C. § 103(a) as being unpatentable over Shimizu in view of Yamada is respectfully requested.

### **103 REJECTION OF CLAIMS 3 AND 11**

Item 5 on page 4 of the outstanding Action sets forth a rejection of claims 3 and 11 under 35 U.S.C. § 103(a) as being unpatentable over Shimizu in view of Yamada and further in view of Henrichs (U.S. Patent No. 6,625,195). This rejection is respectfully traversed.

Henrichs is cited as to the subject matter added by claims 3 and 11 that depend from independent claim 1. To whatever extent that Henrichs may or may not teach this dependent claim added subject matter, it is clear that Henrichs does not cure the deficiencies noted above as to the reliance on Shimizu in view of Yamada. Accordingly, dependent claims 3 and 11 patentably define over the applied references for at least the same reason that parent independent claim 1 does. Therefore, withdrawal of this improper rejection of claims 3 and 11 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Shimizu in view of Yamada in further view of Henrichs is respectfully requested.

### **103 REJECTION OF CLAIMS 8 AND 10**

Item 6 on page 5 of the outstanding Action sets forth a rejection of claims 8 and 10 under 35 U.S.C. § 103(a) as being unpatentable over Shimizu in view of Yamada and further in view of Cheetham et al. (U.S. Patent Application Publication No. 2005/0077499, hereinafter "Cheetham"). This rejection is respectfully traversed.

Cheetham is cited as to the subject matter added by claims 8 and 10 that depend from independent claim 1. To whatever extent that Cheetham may or may not teach this dependent claim added subject matter, it is clear that Cheetham does not cure the deficiencies noted above as to the reliance on Shimizu in view of Yamada. Accordingly, dependent claims 8 and 10 patentably define over the applied references for at least the same reason that parent independent claim 1 does. Therefore, withdrawal of this improper rejection of claims 8 and 10 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Shimizu in view of Yamada in further view of Cheetham is respectfully requested.

### **103 REJECTION OF CLAIM 9**

Item 7 on page 6 of the outstanding Action sets forth a rejection of claim 9 under 35 U.S.C. § 103(a) as being unpatentable over Shimizu in view of Yamada and Cheetham and

further in view of Justel<sup>1</sup> et al. (U.S. Patent No. 6,084,250, hereinafter “Justel”). This rejection is respectfully traversed.

To whatever extent that Justel teaches or does not teach phosphors as containing rare earth elements, the subject matter of dependent claim 9, it does not cure the above-noted deficiencies of Shimizu in view of Yamada and Cheetham.

Accordingly, dependent claim 9 patentably defines over the applied references for at least the same reason that parent independent claim 1 does and withdrawal of this improper rejection of claim 9 under 35 U.S.C. §103(a) as being allegedly unpatentable over Shimizu in view of Yamada and Cheetham in further view of Justel is respectfully requested.

### **103 REJECTION OF CLAIMS 12 AND 13**

Item 8 on page 7 of the outstanding Action sets forth a rejection of claims 12 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Shimizu in view of Kelsey, Jr. (U.S. Patent Application Publication No. 2002/0158267, “Kelsey”). This rejection is respectfully traversed.

With regard to the subject matter of independent claim 12, the outstanding Action acknowledges that there is no teaching or suggestion to be found in Shimizu of a solid material illuminant medium that “contains at least one of nitrides of Ga, In, and Al.”

Page 8 of the outstanding Action tries to cure this glaring deficiency of Shimizu by suggesting that the teachings of Kelsey as to forming a gallium nitride phosphor powder “could” lead the worker of ordinary skill in the art to modify Shimizu in some undefined way to somehow include this Kelsey gallium nitride phosphor powder in place of or in some manner combined with the above-noted covering materials 101 and 201. Thus, the rationale offered at page 8 of the outstanding Action to support the rejection is noted to be improper under MPEP § 706.02(j) because the examiner has failed to identify “the proposed modification of the applied reference(s)” as mandated here. In this regard, it is not clear if it is being suggested that the artisan “could,” if the whim struck him, replace the Shimizu taught resin coating 101 or coating material 201 (that contain the phosphor that can contain Sm of the content claimed) by the Kelsey taught gallium nitride phosphor powder or if this gallium nitride phosphor powder is

---

<sup>1</sup> The outstanding Action apparently includes a typographical error in referring this reference as “Juestel” instead of the actual name “Justel” that appears on U.S. Patent No.6,084,250.

being suggested as a replacement for the Shimizu taught phosphor that can contain Sm of the content claimed.

Not only does the vague suggestion at page 8 that “one of ordinary skill in the art at the time of the invention could modify the display of Shimizu” not explain how this modification of Shimizu would be done, it also presents no “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” in violation of *KSR Int'l v. Teleflex Inc.*, 127 S.Ct. 1727, 82 USPQ.2d 1385, 1396 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir 2006)..

As noted above, it is further impermissible within the framework of section 103 to pick and choose from any one reference only selected teachings while ignoring the other reference teachings necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. See *In re Wesslau, supra*.

In view of the above, independent claim 12 and claim 13 (that directly depends thereon) are respectfully submitted to be clearly patentable over the reasonable teachings and fair suggestions of Shimizu in view of Kelsey. Accordingly, the withdrawal of the rejection of claims 12 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Shimizu in view of Kelsey is respectfully requested.

#### **103 REJECTION OF CLAIMS 14, 15, AND 18**

Item 9 on page 8 of the outstanding Action sets forth a rejection of claims 14, 15, and 18 under 35 U.S.C. § 103(a) as being unpatentable over Shimizu in view of Kelsey further in view of Henrichs,. This rejection is respectfully traversed.

Henrichs is cited as to the subject matter added by claims 14, 15, and 18 that depend from independent claim 12. To whatever extent that Henrichs may or may not teach this dependent claim added subject matter, it is clear that Henrichs does not cure the deficiencies noted above as to the reliance on Shimizu in view of Kelsey. Accordingly, dependent claims 14, 15, and 18 patentably define over the applied references for at least the same reason that parent independent claim 12 does. Therefore, withdrawal of this improper rejection of claims 14, 15, and 18 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Shimizu in view of Kelsey in further view of Henrichs is respectfully requested.

### **103 REJECTION OF CLAIM 16**

Item 10 on page 9 of the outstanding Action sets forth a rejection of claim 16 under 35 U.S.C. § 103(a) as being unpatentable over Shimizu in view of Kelsey and further in view of Cheetham. This rejection is respectfully traversed.

Cheetham is cited as to the subject matter added by claim 16 that depends from independent claim 12. To whatever extent that Cheetham may or may not teach this dependent claim added subject matter, it is clear that Cheetham does not cure the deficiencies noted above as to the reliance on Shimizu in view of Kelsey. Accordingly, dependent claim 16 patentably defines over the applied references for at least the same reason that parent independent claim 12 does. Therefore, withdrawal of this improper rejection of claim 16 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Shimizu in view of Kelsey in further view of Cheetham is respectfully requested.

### **103 REJECTION OF CLAIM 17**

Item 11 on page 11 of the outstanding Action sets forth a rejection of claim 17 under 35 U.S.C. § 103(a) as being unpatentable over Shimizu in view of Kelsey and further in view of Henrichs and Justel. This rejection is respectfully traversed.

Henrichs and Justel are cited as to the subject matter added by dependent claim 17 to dependent claim 15 that ultimately depends from independent claim 12. However, to whatever extent that Henrichs and Justel may or may not teach the subject matter added by dependent claim 17 to dependent claim 15, it is clear that Henrichs and/or Justel do not cure the deficiencies noted above as to the reliance on Shimizu in view of Kelsey as to ultimate parent independent claim 12. Accordingly, dependent claim 17 patentably defines over the applied references for at least the same reason that parent independent claim 12 does. Therefore, withdrawal of this improper rejection of claim 17 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Shimizu in view of Kelsey in further view of Henrichs and Justel is respectfully requested.

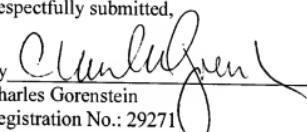
### **CONCLUSION**

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Raymond F. Cardillo, Jr., Reg. No. 40,440 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees. overpayment to Deposit Account No. 02-2448.

Dated: August 6, 2010

Respectfully submitted,

By   
Charles Gorenstein  
Registration No.: 29271  
BIRCH, STEWART, KOLASCH & BIRCH, LLP  
8110 Gatehouse Road, Suite 100 East  
P.O. Box 747  
Falls Church, VA 22040-0747  
703-205-8000